There are three ways to describe motion:

1. in words

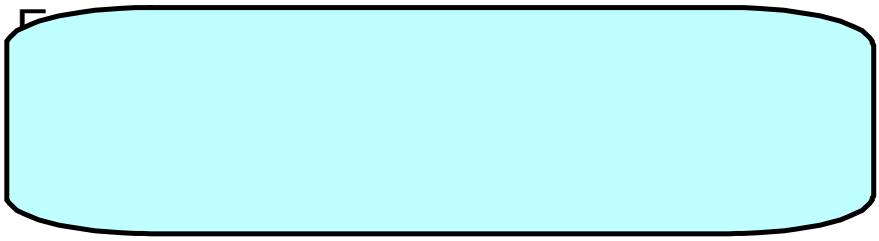
2. in a mathematical equation

3. by graphing

Many different words with a precise scientific meaning are used to
describe motion. There are 2 categories...

1. scalars - have only a numerical value

2. vectors - have a numerical value and a direction



Rearranging Formulas

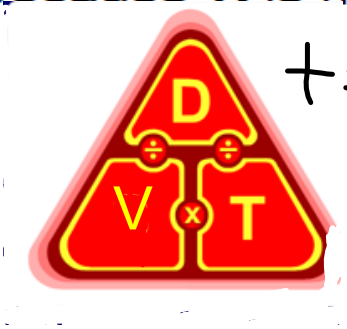
- You must isolate the variable you are trying to solve for.
- To accomplish this you need to use the opposite operation that is indicated.

V - Velocity (speed)

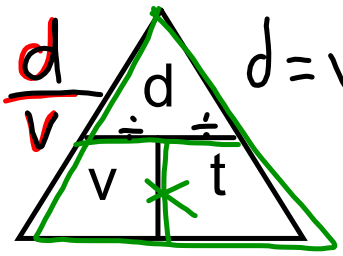
d - distance

t - time

- EXAMPLE:
- d = vt (rearrange for v)
- Divide by t because vt is multiplication.
- $\frac{d}{t} = v$

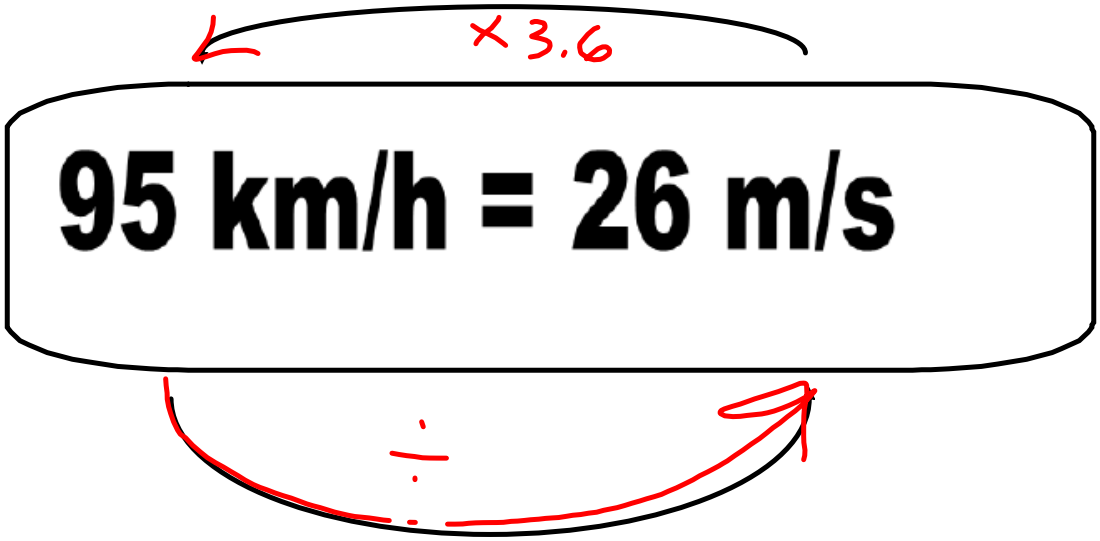


$t = \frac{d}{v}$



$d = v \times t$

$v = \frac{d}{t}$



3.6

1 meter / second = 3.6 kilometers / hr

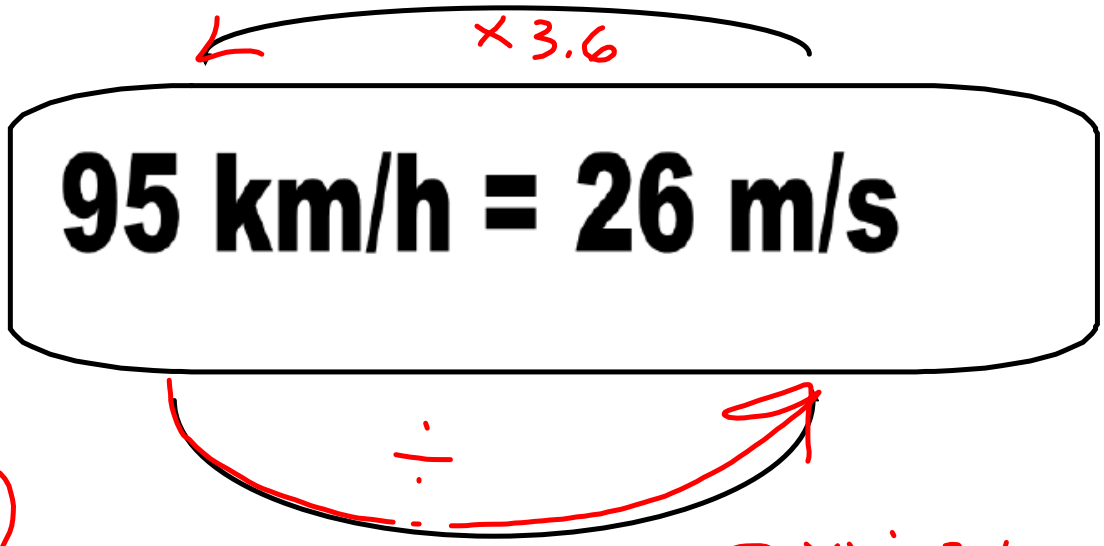
Ex 1

Convert the following:

200km/h to m/s

Ex 2

4.56 m/s to km/h



18. 700 km/h = ? m/s

700 ÷ 3.6 =

$\frac{700}{3.6} = 194.4 \frac{m}{s}$

$200 \frac{m}{s}$

1 meter / second = 3.6 kilometers / hr

19 $6.82 \frac{m}{s}$ = ____ km/h

$6.82 \times 3.6 = 24.552 \doteq 25 \frac{km}{h}$

In class work

1-complete assignment

2- finish right side of worksheet first